System and Method for Delivering Commercial Lines Insurance Policies

Cross reference to related applications

Not applicable.

Background of the invention

1. Field of the invention: The present invention relates to a system and a method for building commercial lines insurance policies using terminals and a central processor responsive to software essentially having one software application accessing system data base files and preferably providing screens containing tables useful to provide commercial lines policy rating to establish policy processing data preferable on a realtime basis to build a data bases and deliver commercial lines insurance policies with invoicing.

2. Description of the prior art: The property and casualty insurance industry, as distinguished from other products in the insurance industry, has not developed automated policy issuance and processing due to the nature of the insurance product and the practice of the industry to use archaic and legacy systems. Writers of commercial lines insurance experience wasteful costs in the course of producing insurance policies and associated administration. One example is found in the conventional practice of collecting data into daily batches from agents by way of fax communications at the insurance companies headquarters and then introducing the data from the batch at a later date into a computer system for quoting issuing policies and

other functions. The result is a competitive disadvantage that must remain economically sound in a highly competitive market necessitating a more efficient policy issuance and management functions. Writers of commercial lines insurance also experience loss and expense due to unpredictable underwriting results directly related to the nature of the commercial lines insurance industry. For example, comprehensive valued assessments of the liability often fail to prevent unpredictable underwriting results due to such adversities as extreme weather patterns. These economic factors encourage a dispersion of the liability at the cost of increased management expenses.

Over the past several years, the Internet has emerged as the fastest growing communications medium in history. Businesses have recognized the online commerce opportunity and are increasingly utilizing the Internet to sell and distribute their products. The notable exception has been the property and casualty insurance industry. The archaic and legacy systems of the commercial lines insurance have limited or eliminated the entry to e-commerce for most carriers. Writers of commercial lines insurance merely display marketing materials on a web site or provide the means of doing business by e-mail which offers no significant economic benefit.

Accordingly, it is an object of the present invention to provide a system to automate the functions of a property-casualty insurance company to include rating, policy issuance, billing, reinsurance, bureau reporting, management reports and claims processing.

It is another object of the present invention to provide a complete system real-time solution providing the functions which are required by a property/casualty insurance carrier within one system.

It is another object of the present invention to provide one software application accessible on a realtime basis by agents and/or administrative personnel for issuing commercial lines insurance policies without resort to batch processing of data.

It is a further object of the present invention to provide one software application triggering all policy management functions including quoting, issuing, endorsing, canceling, reinstatement and auditing. These functions are generated by separate programs typical of current design technique.

It is another object of the present invention to provide reduced time and costs required to make state and company specific system modifications access to commercial lines delivery system.

Summary of the invention

According to the present invention there is provided a system for rating, delivery and administration of commercial lines insurance policies, the system including the combination of, a central processor including software essentially having one software application with control and processing programs to form policy processing data bases to handle all policy functions in the management of commercial lines insurance policies, a user enabled interface coupled to access the one software application using the control and processing programs to form commercial lines insurance policy data bases,

the one software application being operative to building a selected commercial lines insurance policy from a selected one of the commercial lines insurance policy data bases, and a readout for issuing the selected commercial lines insurance policy and invoicing a policy premium therefor, the readout supplying administrative reports using the commercial lines insurance policy data bases.

In another aspect of the present invention there is provided a method for issuing commercial lines insurance, the method including the steps of providing a central processor essentially with one software application including control and processing programs to manage policy functions of commercial lines insurance policies, forming commercial lines insurance policy data bases by accessing the one software application with a user enabled interface, using the one software application to build a selected commercial lines insurance policy from a selected one of the commercial lines insurance policy data bases, issuing the selected commercial lines insurance policy and invoicing a policy premium therefor, and supplying administrative reports using the commercial lines insurance policy data bases.

Brief description of the drawings

The present invention will be more fully understood when the following description is read in light of the accompanying drawings in which:

Figure 1 is schematically illustrated a preferred form communication system of the present invention including the use of the Internet for the issuance and administration of a commercial lines insurance policy

Figure 2 is a logic diagram of the use of one software application for building and issuing a commercial lines insurance policy according the system illustrated by figure 1;

Figure 3 is a control selection menu for entry into control processing programs;

Figure 4 is a logic diagram of a billing software application forming part of the central processor and used as an ancillary part of the system illustrated by figure 1;

Figure 5 is a logic diagram of a report software application forming part of the central processor and used as an ancillary part of the system illustrated by figure 1;

Figure 6 is a logic diagram of a claims software application forming part of the central processor and used as an ancillary part of the system illustrated by figure 1; and

Figure 7 is a logic diagram of a cash entry application forming part of the central processor and used as an ancillary part of the system illustrated by figure 1.

Detailed description of the embodiments of the present invention

In Figure 1 there is illustrated the preferred embodiment of the present invention utilizing the Internet 10 to form a communication link between user enabled interfaces preferably comprising discrete terminals 12-1, 12-2,----12-N at multiple locations and a central processor 14 using a Firewall 16 to access the Internet. The user enabled interfaces are each preferably password protected requiring the identity of the

user as a condition for accessing the central processor. The terminals 12-1, 12-2,----12-N in this embodiment takes the form of personal computers each having a modem for accessing the web by telephone lines 18-1, 18-2,----18-N using Internet service providers. The central processor 14 is coupled for administrative functions as part of a network by an Ethernet cable to an administrative computer terminal 20 forming a readout that includes a printer 22. The central processor includes a storage medium containing operating software essentially consisting of one software application 24 and preferably additional software applications that share data base files of application 24. The additional software applications identified in Figure 1 include a billing software application 100; a report software application 110; a claims software application 120; and a cash entry software application 150. The software applications 24, 100, 110, 120 and 150 are each a software application of the computational and data processing types using both arithmetic computations and data handling operations.

The one software application 24 offers functionality within the policy processing which enables a response to a print command delivered from an agent's terminal to the central processor 14 for printing a commercial lines insurance policy and policy premium invoicing without the need to access one or more other software applications. The present invention can be practiced by providing the terminals 12-1, 12-2 ----12-N connected by telephone lines and/or communication cables to the central processor 14 according to an alternative form of a system communication without the use of the Internet without departing from the present invention. The use of one software

application for this purpose is an important feature of present invention for the administration of commercial lines insurance policies.

In Figure 2, there is illustrated a flow chart of one software application 24, which application essentially includes the use of control and processing programs to handle all policy functions including the use of display fields for building individual policy processing data bases useful for building and issuing commercial lines insurance. The user enabled interfaces identified as terminals 12-1, 12-2----12N maximize their effectiveness by including a display screen, a data input key board, a mouse, memory, a processor for using the one software application including the control and processing programs for building the desired policy processing data bases. Greater details of the one software application, according to the present invention, include the use of the control and processing programs to build data files which is facilitated by the use of display screens, one of which is found in Figure 3. The display screen of Figure 3 takes the form of a control selection menu for entry into control and processing programs each containing display fields enabling the entry of data to the policy processing data bases. System data bases are built using a multiplicity of files, e.g., 100 files each containing a multiplicity of files, e.g., 1000 utilized by the system. Figure 3 illustrates an example of a policy processing display screen allowing for the selection of functions each following by the progression of one or more additional display screens to allow systematic introduction of information for building of an individual policy data base. As seen in Figure 3, the one software application 24 is used in the system by the provision of selection blocks allowing

the user to select any of the following topics: new submit; submit to quote; new quote; work on quote; quote to binder; quote to issue; binder to issue; new issue; work held issue; endorsement; work held issue; endorsement; work held endorsement; cancellation; reinstatement; audit; renewal; bill work review; CTL# (control) bill review; and CTL# (control) review-policy inquiry. The other displayed topics of cash received, cash returned and write off are functions of the cash entry software application 150 that access data files but are not part of the one software application 24. The display screen of Figure 3 allows the collection of additional data in the "selection criteria box along with entry of identification indicia consisting of company identification; control number; and an effective policy date. Management control buttons of: OK; Exit; Allow Company Change; and Allow Agent Change are also provided in the display screen.

The operation of the one software application 24 is particularly characterized by the flow diagram of Figure 2 of the steps used for building the basic information for a commercial lines insurance policy. An agents terminal 12-N and/or the administrative computer terminal 20 first introduces to the system as indicated in the flow diagram entries of the insured name or multi-named insured and effective date of the policy as indicated by block 26. The agent continues by entering information as to the insured address and location of insured property including additional information such as multi-loan or mortgagee as indicated by block 28. Block 30 indicates entry of risk information such as a description of the insured structure and the contents. Also, policy types are entered identifying named perils or an expanded or a basic type of policy.

Miscellaneous coverage is then entered as indicated in block 32 outlining property liability which includes the use of look up tables for the selection and introduction of commercial lines policy rating included in the policy processing data base. The one software application upon command for building the commercial lines insurance policy introduces to the data base forms, defining terms, adding and removing forms as indicated in block 34. Thus, the system automatically applies forms based on selected coverages which the user can override to remove or add additional forms.

The software application then proceeds with the system function of rating the policy using data and the policy processing data base which includes any allowable reinstatement fees as indicated in block 36. The policy rating applicable, for example to Mutual Service Office (MSO) Business owners' Policy supports rating of the following MSO coverages and options: named perils or expanded type of policy; building; personal property; discretionary credit of debit; central station credit; experience rating credit based on years loss free; multiple location credit; new building credit; target classification; accounts receivable; actual cash value; burglary and robbery; consequent loss-utility service, mechanical breakdown; deductibles of 200, 500, 1000, 2000, 3000; wind deductibles of 500, 1000, 2000, 3000, 5000; employee dishonesty; building inflation; loss of income options: delete, dollar limits, extra expense and rental income only; money and securities; off premises; outdoor signs; outdoor glass; peak season; valuable papers; building law/code; indoor showcase glass; theft exclusion; vacancy/un-occupancy; water backup; fire legal liability limits of $50,000-$100,000-$250,000-$500,000; expanded fire

legal liability; liability limits of $300,000-$500,000-$1,000,000; aggregate liability limits of double the occurrence limit; hired non-owned automobile options: delete coverage or expand coverage; professional liability, i.e., barber shop, beauty shop, druggist, funeral director, optical/hearing aid service, incidental professional, veterinarian; employee benefits liability; and additional insured. The one software application using the web 10 allows on a real time basis with click and point technology and browser enabled for Internet or Intranet deployment BOP rating and policy functions.

A decision block 38 diverts the issue of premium acceptability by a branch line in the event of the NO answer to a block 40 where credits may be applied to the premium. The applied credits form an entry in return line 42 to block 26 forming part of basic information as an entry to the system. In the event of the acceptance to the premium a YES answer forms an entry to a decision block 44 allowing for the possibilities of a PRINT-HOLD-BIND option. A HOLD command diverts the quote to storage for later processing as indicated by block 46. A PRINT command to block 48 supplies a copy of the quote to the agent and the company. The PRINT command allows exercise of functionality within the rating system by providing that the system will print a quote worksheet; the system will print declaration pages and required schedules, the user may select to print a review copy of a declaration page and schedules; the system will apply forms as required based in rating selections; the system will rate coverages and display the premium by coverage and location; the user may manually add additional coverage; the user may elect to release policy or hold for further review; and the user maintained forms,

rates and coverages for ease of modifications and rate changes. When the activities by the agent result in the decision to BIND, all subsequent processing proceeds, still within the one software application, by supplying the decision to BIND as a data input to a data base in the central processor 14 which, as indicated by block 50, generates a report to the company followed by a system review of the policy as indicated by block 52.

The result of the policy review by the system is an input to a decision block 54 where a NO decision diverts the matter of issuing a binder for the application of a not accepted label as indicated by block 56. The not accepted label produces a storage of the data file indicated by the block 58. A YES decision from decision block 54 form an entry to block 60 producing an accuracy review of all screening previously accepted. Non treaty reinsurance is entered as an entry in the data base as indicated by block 62 and the one software application proceeds to calculate the treaty reinsurance as indicated by block 64. Both of the non treaty reinsurance and the treaty reinsurance are setup functions in the system to administer limits to acquired liability should there be a release of the policy for issuance. While the treaty reinsurance is automatically recalculated, the system allows for user entry of any facultative (pro-rata or excess) by coverage.

The system then provides a decision block 66 calling for the exercise of HOLD-PRINT-RELEASE options. The HOLD option stores the policy for later processing as indicated by block 68. The PRINT option commands the printing of a copy of the policy for review as indicated by block 70. The RELEASE option issues a command which is delivered by the administrative computer terminal 20 to printer 22 for

printing appropriate policy contracts or reinstatement notices for mailing as indicated by block 72. The printing of the policy contracts produces the building of billing files as indicated by block 74 used by the system for invoicing according to a due date or dates as supplied by the data of the data file. Each data base file identifies the agent(s) with applicable commissions, installment plans and reinsurance. Billing is exercised with the options of direct billing; agency billing; billing by location; and installment plans with installment charges and option to pay in full showing the total amount due less future installment charges. The billing files are clock driven and respond to data entries received from the cash entry software application 150 for capturing reason for cancellation and printing a cancellation notice.

Figure 4 illustrates a flow chart according to a further aspect of the one software application of the present invention providing for a billing software application 100 responsive to a command output from the administrative computer terminal 20 to the central processor 14 which in turn produces a data stream representing billing information reduced to printed form by printer 22. More particularly, block 102 of the flow diagram denotes the command output from an agent's terminal representing requests to print daily invoicing by a user. The one software application of the present invention responds by determining invoices and amounts to print by due date as indicated by block 104. The system invokes filtering that limits the print command to invoicing only with due dates meeting criteria imputed to the system as indicated by block 106. The printing of invoices

invokes a function of the system to generate a report showing the invoices that were printed as indicated by block 108.

Figure 5 illustrates a flow chart of report software application 110 for the generation of daily and monthly reports which are an extension to the billing function also occurring in response to a command output from an agent's terminal 12-1, 12-2 ----12-N and/or the administrative computer terminal 20 and received by the central processor 14. Block 112 of the flow diagram denotes a request by a user for the required daily and month end reports. Such reports on a daily basis identify policies to be canceled due to non payment; the printing of invoices based on a due date; a billing invoice statement providing current amount due as well as past history of paid installments and future installments and a printing of return premium checks responsive to requests when monies are due the insured. Month end reports are generated in the system supported with any month end date; agent commission payable reports; billing aged accounts receivable reports; direct earned by coverage report; direct unearned by coverage report; agent's performance written and an earned report; agent's earned premium and incurred loss report; reinsurance earned by coverage report; and reinsurance by reinsurance contract earned by coverage report. Additionally, statistical coding supports MSO coding by utilizing user maintained tables and generate quarterly files to be sent to MSO. The one software application responds by operation of the system causing the building of the required files/reports as indicated by block 114. The system then functions to generate the reports as indicated by block 116 followed by printing of the reports by printer 22.

Figure 6 illustrates a flow chart according to a further aspect of a claims software application 120 which uses the data bases generated by the one software application as described hereinbefore to process claims arising out of insurance coverages provided from the one software application 24. The claims processing function commences with an entry of user entry data from a standard claim notification form as indicated by block 122. A decision block 124 produces a valid policy determination as a system function which determines a valid policy for the date of loss and displays policy data by a YES decision. In the event of a failure to identify a valid policy, the system invokes a NOT VALID command to the system which displays the message and places the claim in suspension as indicated by block 126. The YES decision functions as an input to function block 128 causing the system to access data files built by the one software application to produce a YES or NO decision to a determination if a valid location of insured property. A NO command from decision block 128 is received by block 130 whereby the user places the claim in a suspended status which appears as an entry of claimant information in block 132. A YES from decision block 128 allows the user to select a valid location and enter data from claim notification as indicated by block 134. The selection of the valid location enables the user to display all policy/location/coverage details from the policy as indicated by block 136. A decision block 138 invokes a valid coverage decision by a YES or NO output which is decided by the user typically a knowledgeable claims adjuster. A NO command from decision block 138 is received by block 140 whereby the user places the claim in the suspended status appearing as an entry

of claimant information in block 132. A YES command from decision block 138 allows the user to select the identity of valid coverage as indicated by block 142 and the entry of the valid coverage information to claimant information encompassed by block 132. The user enters claimant information including loss codes and reserves. The loss codes and reserves are inputted using Tables derived from information block 144. The output from block 132 is supplied to the one software application 24 where the insured claim is processed leading to the payment of the insured claim.

Figure 7 illustrates a flow chart according to a further aspect of the present invention having a cash entry software application 150 which uses the data bases generated by the one software application as described hereinbefore to process cash entries in the system particularly, for example, cash received and cash returned. The cash entry function is initiated by a user accessing a check entry option in a cash entry screen displayed by a monitor of the administrative computer terminal 20 as indicated by block 152. The user selects an option for cash received or returned and enters data including identification and dollar value of the transaction as indicated by block 154. Cash entries are then entered to a batch which the user then selects a posting function to post the cash batch as indicated by block 156. The posting of the cash initiates a data entry function as indicated by block 158 to update the system files with the cash entries forming part of the data in the data bases.

While the present invention has been described in connection with the preferred embodiments of the various figures, it is to be understood that other similar

embodiments may be used or modifications and additions may be made to the described embodiment for performing the same function of the present invention without deviating therefrom. Therefore, the present invention should not be limited to any single embodiment, but rather construed in breadth and scope in accordance with the recitation of the appended claims.